BEHAVIOR RESEARCH METHODS, INSTRUMENTS, & COMPUTERS

Jonathan Vaughan, *Editor*
Hamilton College

Patti Robinson
Editorial Assistant

CONSULTING EDITORS

Doris Aaronson, *New York University*
Margaret Anderson, *State University of New York, Cortland*
Roger Bakeman, *Georgia State University*
Marie T. Balaban, *Eastern Oregon University*
Ira H. Bernstein, *University of Texas, Arlington*
Marc Brysbaert, *Universiteit Gent*
Richard Carlson, *Pennsylvania State University*
Russell M. Church, *Brown University*
Roberto Dell'Acqua, *University of Padua*
David A. Eckerman, *University of North Carolina, Chapel Hill*
Stephen E. Edgell, *University of Louisville*
Gregory Francis, *Purdue University*
Amy Herstein Gervasio, *University of Wisconsin, Stevens Point*
Paula Goolkasian, *University of North Carolina, Charlotte*
Andrew Heathcote, *University of Newcastle*
John Krantz, *Hanover College*
Judith Kroll, *Pennsylvania State University*
Richard S. Lehman, *Franklin & Marshall College*
Brian MacWhinney, *Carnegie Mellon University*
William S. Maki, *Texas Tech University*
Brian P. O'Connor, *Lakehead University*
Patrick Onghena, *Katholieke Universiteit Leuven*
William L. Palya, *Jacksonville State University*
Richard Plant, *University of York*
Vicenç Quera, *Universidad de Barcelona*
Sarah Ransdell, *Florida Atlantic University*
William C. Schmidt, *State University of New York, Buffalo*
Joan Gay Snodgrass, *New York University*
Steven Stern, *University of Pittsburgh*
David A. Washburn, *Georgia State University*
Daniel J. Weeks, *Simon Fraser University*
George L. Wolford III, *Dartmouth College*

Volume 34

PUBLICATIONS COMMITTEE OF THE PSYCHONOMIC SOCIETY

Stephen E. Palmer, Chair, *University of California, Berkeley*
Marilyn C. Smith, *University of Toronto, Scarborough*
Kathryn Bock, *University of Illinois, Urbana-Champaign*
Russell Church, *Brown University*
John Wixted, *University of California, San Diego*
Steven Yantis, *Johns Hopkins University*

PUBLICATIONS OFFICE OF THE PSYCHONOMIC SOCIETY

Robert P. Sanford, *Director*
John E. Bellquist, *Managing Editor*
Dreanne M. Grenier, *Typography Manager*
Paul R. Sweet, *Printing Manager*

Published quarterly (February, May, August, November) by
THE PSYCHONOMIC SOCIETY, INC.
1710 Fortview Road, Austin, Texas 78704
Publication No. 703220 (ISSN 0743-3808)
Periodicals Postage Paid at Austin, Texas
Copyright 2002 by THE PSYCHONOMIC SOCIETY, INC.

STAFF IN AUSTIN

Chris Bezoff
Susan E. Carter
William M. Cook
Patricia A. Dossett
Molly McCombs
Claudia McNutt
Cinnamon Nemec
Josie Ramırez
Kjersti Sanders
Michael F. Slattery, Jr.
Amanda Smith
Thomas L. Throop
Gail Tosto-Geiger
Allison Turrell

Contents of Volume 34

Aidman, E. V., & Shmelyov, A. G. **Mimics: A symbolic conflict/cooperation simulation program, with embedded protocol recording and automatic psychometric assessment** 83

Alexander, M. W. See Truell, A. D.

Álvarez-Cervera, F. J. See Heredia-López, F. J.

Anderson, T. J. See Irie, K.

Arduino, L. S. See Barca, L.

Baddour, R. See James, K. H.

Ballesteros, S. See Reales, J. M.

Barca, L., Burani, C., & Arduino, L. S. **Word naming times and psycholinguistic norms for Italian nouns** 424

Bartlett, J. E., II. See Truell, A. D.

Bata-García, J. L. See Heredia-López, F. J.

Bi, J. **Variance of *d′* for the *same–different* method** ... 37

Birnbaum, M. H., & Wakcher, S. V. **Web-based experiments controlled by JavaScript: An example from probability learning** 189

Blair, I. V., Urland, G. R., & Ma, J. E. **Using Internet search engines to estimate word frequency** 286

Bonebright, T. L. See Molfese, P. J.

Bones, P. J. See Irie, K.

Bradshaw, G. L., Steinman, B., & McCarley, N. **ePsych: Interactive demonstrations and experiments in psychology** 231

Britt, M. A., & Gabrys, G. **Implications of document-level literacy skills for Web site design** 170

Burani, C. See Barca, L.

Butman, J. A. See Makale, M.

Calpe, J. See Vidal-Abarca, E.

Campbell, J. I. D., & Thompson, V. A. More power to you: Simple power calculations for treatment effects with one degree of freedom 332
Correction 630

Chaudhuri, A. See Collin, C. A.

Clarke, A. H., Ditterich, J., Drüen, K., Schönfeld, U., & Steineke, C. **Using high frame rate CMOS sensors for three-dimensional eye tracking** 549

Collier, N. T. See Duncan, S., Jr.

Collin, C. A., & Chaudhuri, A. **Using MATLAB with the Psychophysics Toolbox to present the heterochromatic fusion nystagmus stimulus** 500

Collin, C. A., & McMullen, P. A. **Using Matlab to generate families of similar Attneave shapes** 55

Connine, C. See Inhoff, A. W.

Corkrey, R., & Parkinson, L. **A comparison of four computer-based telephone interviewing methods: Getting answers to sensitive questions** 354

Corkrey, R., & Parkinson, L. **Interactive voice response: Review of studies 1989–2000** 342

Cornelissen, F. W., Peters, E. M., & Palmer, J. **The Eyelink Toolbox: Eye tracking with MATLAB and the Psychophysics Toolbox** 613

Corrie, B. See James, K. H.

Cournia, N. See Duchowski, A.

Cronk, B. C., & West, J. L. **Personality research on the Internet: A comparison of Web-based and traditional instruments in take-home and in-class settings** 177

Danek, A. See Makale, M.

De Cara, B., & Goswami, U. **Similarity relations among spoken words: The special status of rimes in English** 416

de Groot, A. M. B. See Tokowicz, N.

Dekeyser, M., Verfaillie, K., & Vanrie, J. **Creating stimuli for the study of biological-motion perception** 375

Ditterich, J. See Clarke, A. H.

Dolan, C. V., van der Maas, H. L. J., & Molenaar, P. C. M. **A framework for ML estimation of parameters of (mixtures of) common reaction time distributions given optional truncation or censoring** 304

Dougherty, D. M., Marsh, D. M., & Mathias, C. W. **Immediate and delayed memory tasks: A computerized behavioral measure of memory, attention, and impulsivity** ... 391

Drüen, K. See Clarke, A. H.

Duchowski, A. T. **A breadth-first survey of eye-tracking applications** 455

Duchowski, A. [T.], Medlin, E., Cournia, N., Murphy, H., Gramopadhye, A., Nair, S., Vorah, J., & Melloy, B. **3-D eye movement analysis** 573

Duncan, S., Jr., & Collier, N. T. **C-quence: A tool for analyzing qualitative sequential data** 108

Duncan, S. D. See White, D. J.

Erbacher, R. F. See Pastizzo, M. J.

Feldman, L. B. See Pastizzo, M. J.

Ferron, J. **Reconsidering the use of the general linear model with single-case data** 324

Fischer, B. See Hartnegg, K.

Gabrys, G. See Britt, M. A.

Gagné, M. See Zuckerman, M.

Gale, A. G. See Wooding, D. S.

García, E. See Reales, J. M.

Gilabert, R. See Vidal-Abarca, E.

Gilchrist, I. D. See Ludwig, C. J. H.

Gitelman, D. R. **ILAB: A program for postexperimental eye movement analysis** 605

Góngora-Alfaro, J. L. See Heredia-López, F. J.
Goodale, M. A. See James, K. H.
Gordon, O. E., & Malloy, T. E. **On-line Homework/Quiz/Exam applet: Freely available Java software for evaluating performance on line** 241
Goswami, U. See De Cara, B.
Graesser, A. C. See Vidal-Abarca, E.
Grafman, J. See Makale, M.
Gramopadhye, A. See Duchowski, A.
Grice, J. W. **Idiogrid: Software for the management and analysis of repertory grids** 338

Halverson, T. See Hornof, A. J.
Hammond, N. See Plant, R. R.
Hartnegg, K., & Fischer, B. **A turn-key transportable eye-tracking instrument for clinical assessment** 625
Heredia-López, F. J., Bata-García, J. L., Álvarez-Cervera, F. J., & Góngora-Alfaro, J. L. **A novel rotometer based on a RISC microcontroller** 399
Herman, T. M. See Molfese, P. J.
Holmes, M. E. See Josephson, S.
Hornof, A. J., & Halverson, T **Cleaning up systematic error in eye-tracking data by using required fixation locations** 592
Humphrey, G. K. See James, K. H.

Inhoff, A. W., Connine, C., & Radach, R. **A contingent speech technique in eye movement research on reading** ... 471
Irie, K., Wilson, B. A., Jones, R. D., Bones, P. J., & Anderson, T. J. **A laser-based eye-tracking system** 561

James, K. H., Humphrey, G. K., Vilis, T., Corrie, B., Baddour, R., & Goodale, M. A. **"Active" and "passive" learning of three-dimensional object structure within an immersive virtual reality environment** 383
Jasper, J. D., & Shapiro, J. **MouseTrace: A better mousetrap for catching decision processes** 364
Jensen, G. C. See Malloy, T. E.
Jones, R. D. See Irie, K.
Josephson, S., & Holmes, M. E. **Attention to repeated images on the World-Wide Web: Another look at scanpath theory** 539

Kawakami, M. See Tamaoka, K.
Kieffer, S. C. See Zuckerman, M.
King, A. P. See White, D. J.
Kirsner, K. See Tamaoka, K.
Knee, C. R. See Zuckerman, M.
Kroll, J. F. See Tokowicz, N.

Landsheer, J. A., & van den Wittenboer, G. **Fractional Design Wizard: A computer program for cost-effective experimental research design** 117
Li, P., & MacWhinney, B. **PatPho: A phonological pattern generator for neural networks** 408
Lien, M.-C. See Proctor, R. W.
Liu, Z., & Wang, B. **Full-screen ultrafast video modes overclocked by simple VESA routines and registers reprogramming under MS-DOS** 257
Llamazares, I. See Sodhi, M.
Loschky, L. C. See:
McConkie, G. W.
Reingold, E. M.
Ludwig, C. J. H., & Gilchrist, I. D. **Measuring saccade curvature: A curve-fitting approach** 618

Ma, J. E. See Blair, I. V.
Macho, S. **Cognitive modeling with spreadsheets** ... 19
Erratum 452
MacWhinney, B. See Li, P.
Magliano, J. P., Wiemer-Hastings, K., Millis, K. K., Muñoz, B. D., & McNamara, D. **Using latent semantic analysis to assess reader strategies** 181
Makale, M., Solomon, J., Patronas, N. J., Danek, A., Butman, J. A., & Grafman, J. **Quantification of brain lesions using interactive automated software** 6
Malloy, T. E., Jensen, G. C., Regan, A., & Reddick, M. **Open courseware and shared knowledge in higher education** 200
Malloy, T. E. See Gordon, O. E.
Marsh, D. M. See Dougherty, D. M.
Mathias, C. W. See Dougherty, D. M.
McCarley, N. See Bradshaw, G. L.
McConkie, G. W., & Loschky, L. C. **Perception onset time during fixations in free viewing** 481
McDonald, S. A., & Tamariz, M. **Completion norms for 112 Spanish sentences** 128
McHale, M. A. See Wolach, A. H.
McMullen, P. A. See Collin, C. A.
McNamara, D. See Magliano, J. P.
Medlin, E. See Duchowski, A.
Melloy, B. See Duchowski, A.
Millis, K. K. See Magliano, J. P.
Miyaoka, Y. See Tamaoka, K.
Molenaar, P. C. M. See Dolan, C. V.
Molfese, P. J., Bonebright, T. L., Herman, T. M., & Roe, C. A. **A multimodal data collection tool using REALbasic and Mac OS X** 227
Mugglestone, M. D. See Wooding, D. S.
Muñoz, B. D. See Magliano, J. P.
Murphy, H. See Duchowski, A.

Nafshi, I. See Zuckerman, M.
Nair, S. See Duchowski, A.
Neuhaus, C. See Reips, U.-D.

Palmer, J. See Cornelissen, F. W.
Parkinson, L. See Corkrey, R. (2)
Pastizzo, M. J., Erbacher, R. F., & Feldman, L. B. **Multidimensional data visualization** 158
Patronas, N. J. See Makale, M.
Peters, E. M. See Cornelissen, F. W.
Pettit, F. A. **A comparison of World-Wide-Web and paper-and-pencil personality questionnaires** 50
Plant, R. R., Hammond, N., & Whitehouse, T. **Toward an Experimental Timing Standards Lab: Benchmarking precision in the real world** 218

Proctor, R. W., Lien, M.-C., Vu, K.-P. L., Schultz, E. E., & Salvendy, G. **Improving computer security for authentication of users: Influence of proactive password restrictions** 163

Purdy, K. J. See Wooding, D. S.

Radach, R. See Inhoff, A. W.

Ransdell, S. **Teaching psychology as a laboratory science in the age of the Internet** 145

Reales, J. M., Ballesteros, S., & García, E. **Visual-word identification thresholds for the 260 fragmented words of the Snodgrass and Vanderwart pictures in Spanish** ... 276

Reddick, M. See Malloy, T. E.

Regan, A. See Malloy, T. E.

Reimer, B. See Sodhi, M.

Reingold, E. M., & Loschky, L. C. **Saliency of peripheral targets in gaze-contingent multiresolutional displays** 491

Reips, U.-D., & Neuhaus, C. **WEXTOR: A Web-based tool for generating and visualizing experimental designs and procedures** 234

Reyes, H. See Vidal-Abarca, E.

Reyna, V. F. See Wolfe, C. R.

Richardson, J. T. E., & Vecchi, T. **A jigsaw-puzzle imagery task for assessing active visuospatial processes in old and young people** 69

Roe, C. A. See Molfese, P. J.

Salvendy, G. See Proctor, R. W.

Schmidt, W. C. **A server-side program for delivering experiments with animations** 208

Schönfeld, U. See Clarke, A. H.

Schultz, E. E. See Proctor, R. W.

Shapiro, J. See Jasper, J. D.

Sheu, C.-F. **Fitting mixed-effects models for repeated ordinal outcomes with theNLMIXED procedure** 151

Shibata, S. **A Macintosh and Windows program for assessing body-image disturbance using adjustable image distortion** 90

Shimizu, H. **Measuring keyboard response delays by comparing keyboard and joystick inputs** 250

Shmelyov, A. G. See Aidman, E. V.

Sodhi, M., Reimer, B., & Llamazares, I. **Glance analysis of driver eye movements to evaluate distraction** 529

Solomon, J. See Makale, M.

Soria, E. See Vidal-Abarca, E.

Steineke, C. See Clarke, A. H.

Steinman, B. See Bradshaw, G. L.

Tamaoka, K., Kirsner, K., Yanase, Y., Miyaoka, Y., & Kawakami, M. **A Web-accessible database of characteristics of the 1,945 basic Japanese kanji** 260

Tamariz, M. See McDonald, S. A.

Thompson, V. A. See Campbell, J. I. D.

Tokowicz, N., Kroll, J. F., de Groot, A. M. B., & van Hell, J. G. **Number-of-translation norms for Dutch–English translation pairs: A new tool for examining language production** 435

Truell, A. D., Bartlett, J. E., II, & Alexander, M. W. **Response rate, speed, and completeness: A comparison of Internet-based and mail surveys** 46

Urland, G. R. See Blair, I. V.

van den Wittenboer, G. See Landsheer, J. A.

van der Maas, H. L. J. See Dolan, C. V.

van Hell, J. G. See Tokowicz, N.

Vanrie, J. See Dekeyser, M.

Vaughan, J. **Eye Movement Research Methods: Editorial** 453

Vaughan, J. **Society for Computers in Psychology: Editorial** 143

Vecchi, T. See Richardson, J. T. E.

Verfaillie, K. See Dekeyser, M.

Vidal-Abarca, E., Reyes, H., Gilabert, R., Calpe, J., Soria, E., & Graesser, A. C. **ETAT: Expository Text Analysis Tool** 93

Vilis, T. See James, K. H.

Vorah, J. See Duchowski, A.

Vu, K.-P. L. See Proctor, R. W.

Wakcher, S. V. See Birnbaum, M. H.

Wang, B. See Liu, Z.

West, J. L. See Cronk, B. C.

White, D. J., King, A. P., & Duncan, S. D. **Voice recognition technology as a tool for behavioral research** 1

Whitehouse, T. See Plant, R. R.

Wiemer-Hastings, K. See Magliano, J. P.

Wilson, B. A. See Irie, K.

Wolach, A. H., & McHale, M. A. **Computer program to generate operant schedules** 245

Wolfe, C. R., & Reyna, V. F. **Using NetCloak to develop server-side Web-based experiments without writing CGI programs** 204

Wooding, D. S. **Eye movements of large populations: II. Deriving regions of interest, coverage, and similarity using fixation maps** 518

Wooding, D. S., Mugglestone, M. D., Purdy, K. J., & Gale, A. G. **Eye movements of large populations: I. Implementation and performance of an autonomous public eye tracker** 509

Yanase, Y. See Tamaoka, K.

Zuckerman, M., Gagné, M., Nafshi, I., Knee, C. R., & Kieffer, S. C. **Testing discrepancy effects: A critique, a suggestion, and an illustration** 291

GUIDELINES FOR AUTHORS

General Information, Computer Disks, Tables, Figures ... 140

NOTICES AND ANNOUNCEMENTS

SCiP 2002 Call for Papers 138

SQAB: Society for the Quantitative Analyses of Behavior Annual Meeting 139